

INTEGRATION OF ARTIFICIAL INTELLIGENCE IN THE ISLAMIC RELIGIOUS EDUCATION CURRICULUM: OPPORTUNITIES, CHALLENGES, AND IMPLICATIONS

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Article History :

Submission: 28-09-2025

Revised: 20-10-2025

Accepted: 24-12-2025

Published:

Keyword : Artificial

Intelligence, Islamic Religious
Education, Adaptive Curriculum

Kata Kunci : Artificial

Intelligence, Pendidikan Agama
Islam, Kurikulum Adaptif

Abstract

This study focuses on the integration of Artificial Intelligence (AI) in the Islamic Religious Education (IRE) curriculum, examining the opportunities, challenges, and implications of AI application for the transformation of religious education in the digital age. The novelty of this study lies in its comprehensive review that combines technological, pedagogical, and Islamic values aspects in the IRE curriculum, which has been little studied in depth. The method used is literature research with structured literature studies from various relevant sources. The results show that AI has great potential in personalizing learning, increasing access and interactivity of materials, and strengthening Islamic digital literacy and digital ethics. However, there are major challenges in the form of teacher readiness, infrastructure limitations, ethical issues in the use of AI, and the need to adapt the curriculum based on the values of the Quran and hadith. The implications of AI integration include adaptive curriculum renewal, teacher training, and collaboration between the fields of education and technology to support relevant and comprehensive education. This study provides strategic guidance for Islamic educational institutions in responding to the era of education 5.0, which emphasizes a balance between technology and Islamic values.

Abstrak

Penelitian ini fokus pada integrasi Artificial Intelligence (AI) dalam kurikulum Pendidikan Agama Islam (PAI), mengkaji peluang, tantangan, dan implikasi penerapan AI untuk transformasi pendidikan agama di era digital. Kebaruan penelitian ini terletak pada kajian komprehensif yang menggabungkan aspek teknologi, pedagogi, dan nilai-nilai Islami dalam kurikulum PAI, yang masih sedikit dikaji secara mendalam. Metode yang digunakan adalah riset kepustakaan dengan studi literatur terstruktur dari berbagai sumber relevan. Hasil penelitian menunjukkan bahwa AI memiliki potensi besar dalam personalisasi pembelajaran, peningkatan akses dan interaktivitas materi, serta penguatan literasi digital Islami dan akhlak digital. Namun, terdapat tantangan utama berupa kesiapan guru, keterbatasan infrastruktur, masalah etika penggunaan AI, dan kebutuhan adaptasi kurikulum berbasis nilai Al-Quran dan hadis. Implikasi dari integrasi AI ini mencakup pembaharuan kurikulum adaptif, pelatihan guru, dan kolaborasi antara bidang pendidikan dan teknologi untuk mendukung pendidikan yang relevan dan komprehensif. Penelitian ini memberikan panduan strategis bagi lembaga pendidikan Islam untuk menyikapi era pendidikan 5.0 yang mengedepankan teknologi dan nilai-nilai keislaman secara seimbang.

INTRODUCTION

The development of digital technology, particularly Artificial Intelligence (AI), has had a major impact on the world of education. AI is capable of providing adaptive, interactive, and data-driven learning. Various forms of AI utilization in education systems have been implemented in many countries, including Indonesia. Examples of its application include the use of educational chatbots, adaptive learning platforms, automated evaluation systems, and the creation of digital learning content. In the context of religious education, AI has the potential to create a more immersive and enjoyable learning experience, such as application-based learning of the Qur'an and hadith, simulation of fiqh material, and data-based spiritual supervision. AI can also help design curricula that are tailored to the individual characteristics of students, making the learning process more personalized and focused (Muthohar, 2025).

However, the application of AI in Islamic Religious Education (IRE) still faces various fundamental challenges. Theoretically, the PAI curriculum still tends to be traditional and has not been fully integrated with modern technological developments. In fact, the challenges of the digital era require PAI to not only focus on the transfer of religious knowledge but also equip students with Islamic digital literacy that is relevant to their life context, including in dealing with the phenomena of hoaxes and digital gossip (Masti Yanto, Zeinal Abidin, 2024).

From a practical standpoint, the readiness of educators is a major obstacle. Many PAI teachers do not yet have adequate skills to effectively utilize AI technology. This condition is exacerbated by limited educational infrastructure in some schools, so that the use of AI has not been optimal. In addition, the use of AI also has the potential for negative impacts such as plagiarism, content misuse, algorithm bias, and digital ethics degradation, which are contrary to the Islamic values taught in PAI (Indra Saputra & Candra Syahputra, 2021).

Academically, research on the application of AI in education is quite developed, but studies that specifically review the integration of AI with the PAI curriculum are still very limited. This has led to a research gap that needs to be addressed, namely how to position AI not only as a learning tool, but as an integral part of the PAI curriculum strategy that remains based on the Qur'an and hadith (Sadatul Kahfi et al., 2025).

This article will discuss the opportunities, challenges, and implications of integrating AI with the PAI curriculum. It is hoped that this article can serve as a guide for Islamic educational institution management in formulating the opportunities, challenges, and implications of integrating AI with the PAI curriculum.

Method

This research uses a literature review approach by conducting a study of literature relevant to the subject matter. A literature study is research conducted by collecting information and data through various sources in libraries, such as books, references, relevant previous studies, articles, notes, and journals relevant to the topic being studied. This process is carried out in a structured manner to collect, analyze, and conclude data using specific methods or techniques to find solutions to the problems faced (Sugiyono, 2020).

Results and Discussion

The Concept of Integrating Artificial Intelligence (AI) into the Islamic Education (PAI) Curriculum

Currently, we are in the 5.0 Era, a period in which artificial intelligence, the Internet of Things, big data, and various other advanced technologies are drastically changing the way humans interact and work. As a result, education is also undergoing significant transformation, directly impacting teaching and learning methods as well as preparing individuals to meet future career demands. Education 5.0 provides opportunities for students to acquire more relevant knowledge and skills. One of the characteristics of Education 5.0 is the integration of technology and the learning process (Zarkani et al., 2024).

AI (Artificial Intelligence) is a system designed for innovation in studies that can be replicated on machines or computers, with a level of intelligence equal to or exceeding that of humans. Artificial intelligence (AI) was originally created to simplify human tasks, but has now developed to the point where it can replace humans in some jobs. In education, AI can be seen in intelligent learning systems that offer responses and recommendations tailored to

the needs of individual students through machine learning algorithms (Suharyo et al., 2024). This means that AI not only helps but also improves learning efficiency, creating a more personalized learning experience. Although AI offers many advantages, the role of humans remains essential in managing and directing its use.

The integration of AI in Islamic education in the 5.0 era has great potential to hone important 21st-century skills, such as critical thinking, creativity, collaboration, and communication. Technology provides the means and platform that enable students to interact and collaborate virtually, gain access to a variety of knowledge sources, and produce creative projects that are relevant to real life (Annisa et al., 2024). AI can be used to create intelligent tutoring systems that provide real-time feedback, help students understand difficult concepts, and monitor their learning progress. The integration of technology and AI in Islamic education not only streamlines the learning process but also increases student motivation and participation (Zarkani et al., 2024).

A study shows that AI-based educational applications significantly improve student learning outcomes due to their ability to tailor material to individual needs. The concept of AI integration in Islamic Religious Education in Society 5.0 is an effort to unite technology with Islamic human values and spirituality. The goal is not only to increase efficiency, but also to create a more personalized, in-depth, and relevant learning process (Sari Hernawati et al., 2024).

The above explanation leads to the conclusion that integrating Artificial Intelligence (AI) into the Islamic religious education (PAI) curriculum will bring about a profound transformation, not merely adding technology but designing a highly personalized and relevant learning experience. AI will adapt the materials on Fiqh, Aqidah Akhlak, Islamic Cultural History, and the Qur'an Hadith to the style, speed, and level of understanding of each student. It can even recommend various additional learning resources, such as lectures or virtual worship simulations, according to their interests (Djazilan et al., 2024). This curriculum also aims to equip students with critical thinking and religious digital literacy skills, teaching them to analyze and evaluate information generated by AI, as well as to use this technology ethically in the context of da'wah and research (Hadi, 2023). Additionally, the curriculum will integrate naqli and aqli sciences, connect PAI values with science and technology, and use AI to discuss contemporary issues such as AI ethics from an Islamic perspective. Ultimately, AI will be utilized for continuous formative evaluation and instant feedback, helping teachers identify areas for improvement and ensuring that PAI material remains flexible and adaptive to the dynamics of the times, with teachers playing the primary role as facilitators in character building and comprehensive understanding of Islam (Gunawan, 2023).

Opportunities for Integrating Artificial Intelligence (AI) into the Islamic Education (PAI) Curriculum

Technology opens up great opportunities for the transformation of Islamic education, as follows:

1. **Personalized Learning**

AI can tailor PAI materials to the needs and abilities of students.

2. **Efficiency and Accessibility in Islamic Education**

The integration of artificial intelligence (AI) in Islamic religious education opens up great opportunities to improve the efficiency and accessibility of learning. AI can help

teachers develop curricula, provide quick and accurate feedback, recommend materials according to student needs, and ease the administrative burden so that teachers can focus more on the teaching and learning process. In addition, AI provides interactive learning resources, such as videos and simulations, which expand the reach of Islamic religious education globally while overcoming geographical and socio-economic barriers. In the era of globalization, the flexibility and ease of access offered by AI are key to advancing Islamic religious education (Zahriyah, 2025).

3. Interactive Media

Various AI-based applications, such as Islamic chatbots, virtual education assistants, and online learning platforms integrated with Islamic content, allow students to learn flexibly outside the traditional classroom environment. Learning materials can be presented in various formats, such as text, audio, video, and even 3D simulations that illustrate Islamic practices or history in an interesting and easy-to-understand manner. For example, AI technology can be used to create interactive simulations of the Hajj pilgrimage, introduce the cultural diversity of Islam from various countries, or automatically respond to religious questions through a reliable database of fiqh and tafsir. Thus, this innovation not only encourages interest in learning but also deepens the learning of PAI (Maulidia et al., 2023).

4. Digital Ethics Monitoring. AI can assist teachers in evaluating students' digital interactions, making ethical assessments more contextually relevant.

With the implementation of this technology, Islamic education can reach more people, remain relevant to contemporary developments, and uphold Islamic values globally, fairly, and contextually. Additionally, AI supports the enhancement of teacher professionalism through data-driven training and curriculum evaluation.

Challenges in Implementing Artificial Intelligence (AI) Integration into the Islamic Religious Education (IRE) Curriculum

The application of AI in religious teaching presents a number of complex challenges. The various challenges faced in implementing AI in religious learning and their impacts are as follows: (Anandal et al., 2024)

- a. Religious education curricula are often irrelevant to developments in artificial intelligence. Adjusting curriculum content to keep pace with technological advances is not easy because it requires revision and approval. In addition, Islamic education curricula are influenced more by political policies than by philosophical-pedagogical approaches, making them less responsive to the needs of society and changes of the times (Rozi et al., 2024).
- b. Technology Ethics. PAI teachers are responsible for ensuring that the technology used remains ethical in terms of religion and culture so as to avoid plagiarism, misuse of information, and algorithmic bias.
- c. Infrastructure Limitations. Not all schools have facilities that support the use of AI.
- d. Competence of PAI Teachers. Many teachers still lack digital literacy and are not accustomed to using AI (Hafiz et al., 2024).

It can be concluded that the application of AI in Islamic Religious Education (IRE) offers many opportunities but also faces challenges. Rigid curricula, difficulties in adapting

religious materials to technology, and ethical issues are the main obstacles. IR teachers are required to master 21st-century skills and adapt learning methods to the digital era. Limited facilities, funding, and technological understanding also hinder AI integration. Therefore, curriculum adjustments, teacher training, and competency enhancement are needed to optimize the use of AI in IR without compromising Islamic values.

Implications of Artificial Intelligence (AI) Integration in the Islamic Religious Education (IRE) Curriculum

The integration of artificial intelligence in Islamic religious education has broad implications, including aspects of the curriculum, educators, character building, and interdisciplinary collaboration. The following are the implications of AI integration in the Islamic religious education curriculum:

1. Adaptive Curriculum Development. Islamic religious education needs to add material on Islamic digital literacy, social media ethics, and the Islamic use of technology.
2. Teacher Training. Islamic Education teachers need to be equipped with AI training so that they can use it as a learning tool (Rahmawati et al., 2025).
3. Digital Ethics Formation. Islamic education supported by AI can emphasize the values of tabayyun, communication etiquette, and the prohibition of gossip in the digital context.
4. Collaboration between Education and Technology. Synergy between scholars, academics, and technology developers is needed to create AI that is in line with Islamic values (Subandowo, 2023).

From the above explanation, the integration of Artificial Intelligence (AI) into the Islamic Religious Education (PAI) curriculum shows great potential in improving learning effectiveness. AI is capable of providing adaptive, interactive, and data-driven learning, while also supporting the personalization of material according to the needs of students (Ahmad, 2005). Previous researchers have emphasized that this technology can be a means to strengthen Islamic digital literacy, so that students not only understand religious values in theory but are also able to face the challenges of the digital era, such as hoaxes, digital gossip, and negative behavior on social media. The use of AI also allows teachers and educational institutions to provide interactive media, automatic evaluation, and broader learning resources, making the PAI learning process more interesting and contextual (Zaimina, 2024).

However, the application of AI in PAI also presents challenges, both in terms of teacher competence, infrastructure readiness, and the risk of technology misuse. Several studies show that the use of AI without Islamic values framing has the potential to reduce students' moral sensitivity, facilitate plagiarism, and cause algorithmic bias. Therefore, the integration of AI into the PAI curriculum needs to be accompanied by an approach that emphasizes digital ethics, Islamic literacy, and social media ethics. In this way, AI will not only be a technological tool, but also part of a curriculum strategy that is adaptive, innovative, and still based on the values of the Qur'an and hadith (Muis et al., 2024).

Conclusion

The integration of Artificial Intelligence with the PAI curriculum is an important step in addressing educational challenges in the digital age. AI has great potential to enhance

learning effectiveness, strengthen Islamic digital literacy, and shape students' digital ethics. However, the main challenges lie in teacher competence, the ethics of AI use, and curriculum readiness. Consequently, the PAI curriculum needs to be updated adaptively, teachers need to be trained in the use of AI, and there needs to be an education policy that regulates the use of AI in PAI.

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